## No. 34,960. Apparatus for Manufacturing Ventilated Felt Hats, Helmets, etc. (*Appareil de ventilation dans la fabrication des chapeaux et autres coiffures.*)

Robert Robertson, Romiley, Chester County, England, 2nd September, 1890; 5 years.

*Claim.*—1st. The improved manufacture of felt hats, helmets, or other head coverings, by forming corrugations or ventilating channels directly in the felt hat body itself, substantially as hereinbefore described and illustrated on the accompanying drawing. 2nd. In the manufacture of felt hats, helmets, or other head coverings, the employment of corrugated metal ring in two or more parts, for forming corresponding corrugations in the hat, during the blocking of the same, substantially as and for the purpose hereinbefore set forth.

## No. 34,961. Door Stay. (*Renfort de porte.*)

Levi R. Plank, Ashland, Ohio, U.S.A., 2nd September, 1890; 5 years.

*Claim.*—A door stay, formed of two independent and separable pieces A, B, the part A, having the curved end $a$, hooked end $a^1$, and trunnioned neck $a^2$, and the part B, having the slots $b$, $b^1$, and bearings $b^3$, $b^3$, whereby the part A, may be reversed, and the door stay used with a door turning in any direction, as set forth.

## No. 34,962. Root Cutting Machine.

(*Coupe-racine.*)

Hiram E. Staples, Lyman T. Covell, and Henry Edwin Heagle, Whitehall, Michigan, U.S.A., 2nd September, 1899; 5 years.

*Claim.*—1st. In a root cutter, the longitudinally reciprocating cutter frame, having the horizontal knife secured upon its upper side, and provided with bottom plates secured to the under sides of its side pieces, in combination with the transverse brace bar, the bolts or screw threaded rods mounted longitudinally in the latter, and having the adjusting nuts, the longitudinally adjustable vertical knives, and spacing blocks mounted upon the under side of the horizontal knife and the bearing plates, substantially as set forth. 2nd. The combination, with the horizontal knife having longitudinal countersunk slots, of the vertical knives and beveled ended spacing blocks, the transverse connecting bolts, the screws or bolts for securing said vertical knives, and spacing blocks to the under side of the horizontal knife, and mechanism for adjusting said knives and spacing blocks longitudinally, substantially as set forth. 3rd. In a root cutter, the longitudinally reciprocating cutter frame, comprising the side pieces and the bottom plates, in combination with the horizontal knife secured upon the upper side of the cutter frame, the transverse brace having longitudinal bolts and adjusting nuts, the vertical knives, and spacing blocks, the transverse bolts connecting the latter and extending into recesses in the sides of the cutter frame, screws or bolts for attaching said vertical knives and spacing blocks to the under side of the horizontal knife, and the bearing plate, all arranged and operating, substantially as and for the purpose set forth. 4th. In a root cutter, the combination of the longitudinally reciprocating cutter, and the vertical longitudinally adjustable knives, and spacing blocks with the hopper having the adjustable cutting blocks to receive the impact of the knives or cutters, the discharge spout and suitable operating mechanism, substantially as set forth. 5th. The combination of the supporting frame, the guide cleats mounted upon the latter and having longitudinal ways or bearings in their sides, the longitudinally reciprocating cutting frame mounted in said ways or bearings, and having the horizontal and vertical knives, and cutters, and the hopper having the longitudinally adjustable cutting blocks, substantially as and for the purpose set forth. 6th. In a root cutting machine, the combination of the supporting frame, the hopper having longitudinally adjustable cutting blocks, the discharge spout, the longitudinally reciprocating cutter frame having the stationary horizontal knife, and the longitudinally adjustable vertical knives, and spacing blocks, and the bottom plates secured to the under side of the cutter frame, all arranged and operating, substantially as and for the purpose set forth.

## No. 34,963. Railway Car Heating. (*Appareil de chauffage des chars de chemin de fer.*)

The Consolidated Car Heating Company, (assignees of James Finney McElroy), Albany, N.Y., U.S.A., 2nd September, 1890; 5 years.

*Claim.*—1st. In a car heater, a water jacket surrounding the combustion chamber, a steam coil in said water jacket, a steam supply pipe connecting with the upper end of said water jacket, a steam exit pipe connecting with the lower end thereof, the water supply pipe connecting at the lower edge of the water chamber, the water exit pipe connecting at or near the top thereof, substantially as described. 2nd. In a water heater, a water jacket complete in itself, and forming the casing for the combustion chamber, a steam coil in said water chamber, and connected at top and bottom therewith by means of flanged elbows J, of flanged nipples at the top and bottom of the said water chamber for the in-going and out-going water connection, the parts being arranged to operate, substantially as and for the purpose described. 3rd. In a water heater, a water jacket surrounding the combustion chamber, a steam coil in said water jacket connecting at top and bottom with the flanged elbows J, the elbows J, having segmental circular flanges $l$, and screw threaded apertures $o$, and $o$, substantially as described. 4th. In a car heater, a water jacket complete in itself, a steam coil in said water jacket, apertures in said jacket for steam and water connections, the whole being constructed to form a casing for the combustion chamber, resting upon the base, and making a tight joint with the top, substantially as described.

## No. 34,964. Puzzle. (*Jeu de patience.*)

Howard Keifer, Pequannock, N.J., U.S.A., (assignee of Floyd Jones,) Pompton Plains, N.J., U.S.A., 2nd September, 1890; 5 years.

*Claim.*—1st. The game apparatus described, comprising a receptacle having straight sides, and divided into compartments and passage ways by means of strips confined within the receptacle, and arranged as follows: the strip $c$, parallel with one end of the receptacle, the strip $b$, connecting the strip $c$, with the said end, the strip $d$, extending from the strip $c$, parallel with the side of the receptacle of less length than the side, the strip $f$, upon the opposite side, and extending at an angle to the side, the intermediate strip $g$, at an angle to the strips $d$, and $f$, and the strips $h$, $i$, and $j$, near the opposite end of the receptacle, and arranged, substantially as shown and described.

## No. 34,965. Mop. (*Torchon.*)

David H. Rose, Warsaw, Canada, (assignee of Israel E, Youngblood, Sioux Falls, South Dakota, U.S.A.,) 2nd September, 1890; 5 years.

*Claim.*—1st. In a mop, the combination of the handle, the stationary member secured thereto, the sliding member mounted on the handle, the cloth secured to the said members, as set forth. 2nd. The combination of the handle, the stationary member secured thereto and having a semi-elliptical loop, and the sliding member mounted on the handle and having a projection adapted to pass through and engage the semi-elliptical loop of the stationary member, as set forth. 3rd. The combination of the handle, the stationary member secured thereto, and having a narrow loop on one side, and a semi-elliptical loop on the other side, the sliding member mounted on the handle and provided with an eye, and a sleeve engaging the handle and having a cross bar, and a pointed projection adapted to engage the semi-elliptical loop of the stationary member, and the mop hung in the narrow loop of the stationary member, and on the cross bar of the sliding member.

## No. 34,966. Coin-Operated Liquid-Vending Apparatus. (*Appareil actionné par une pièce de monnaie pour la vente des liquides.*)

Henri Schloesing and Benjamin Degremont, Marseilles, France, 3rd September, 1890; 5 years.

*Claim.*—1st. In a coin-operated liquid vending apparatus, the combination of an oscillatory delivery-vessel or tipper, pivotally supported at an intermediate point of its length, a valved supply pipe for delivering liquid directly to said vessel or tipper, a vertically movable float located within said vessel or tipper, and connected by intermediate devices with the valve to regulate the quantity of liquid supplied to the vessel or tipper, and a coin-operated lever carried by said oscillatory vessel or tipper, to tilt the latter and cause it to discharge its contents upon the introduction of a coin of proper denomination to said coin-lever, substantially as described. 2nd. In a coin-controlled liquid-vending apparatus, the combination of an oscillating delivery-vessel or tipper, pivotally supported at an intermediate point of its length, and having means for counter balancing the same, a stationary trough arranged to receive the contents of the vessel, mechanism, substantially as described, for automatically refilling the vessel with a predetermined quantity of liquid after the vessel has been tilted to discharge its contents, and a coin-operated lever rigidly secured to said vessel to tilt the latter, substantially as and for the purpose described. 3rd. In a coin-controlled liquid-vending apparatus, the combination of an oscillatory counterbalanced delivery-vessel or tipper, a coin-operated lever connected to said vessel to tilt the latter, a fixed coin-way intermediate the coin-slot, and lever to guide the coin to the lever, a float operating in said delivery-vessel, a lever connected at one end to the float and carrying a coin-detaining plate at its opposite end, which plate is adapted to close the coin slot when the supply of liquid is exhausted, and mechanism, substantially as described, for automatically refilling said vessel with a predetermined quantity of liquid, substantially as and for the purpose described. 4th. In a coin-controlled liquid-vending apparatus, the combination of an oscillatory delivery-vessel or tipper, a supply-pipe leading from a suitable tank or reservoir, and having an automatic valve, and a float operating in said vessel, and connected to the valve to normally close the same and automatically open it when the vessel is emptied of its contents, arranged and combined for service, substantially as herein shown and described. 5th. In a coin-controlled liquid-vending apparatus, the combination of an oscillatory delivery-vessel or tipper, a supply-pipe having an automatic valve, a float operating in said vessel, and connected to the valve to control the latter, and a coin-operated lever connected to said vessel to tilt the latter, substantially as and for the purpose described. 6th. In a coin-controlled liquid-vending apparatus, the combination of an oscillatory counterbalanced delivery-vessel or tipper, a supply-pipe having an automatic valve, a float operating in said vessel, and connected to the valve, a coin-operated lever fixed to the vessel, and a coin-way, beneath which the free end of said lever is normally arranged to receive the coin directly therefrom, substantially as and for the purpose described. 7th. A fixed inclined coin-way having a coin-slot of the proper diameter formed therein, and a lever carried by a tiltable vessel or receptacle, and normally held by the latter in position beneath the coin-way to receive a coin after it passes through the slot in said coin-way, for the purpose described. 8th. A fixed inclined coin-way having a coin-slot, a tiltable receptacle, and a lever carried by said receptacle, and having a coin-holder at its free end, said coin-holder being provided with vertical prongs $g$, for the purpose described, substantially as set forth. 9th. In a coin-operated liquid-vending apparatus, the combination of an oscillatory delivery-vessel or tipper, a fixed supply-pipe leading from a suitable tank, and having a valve-seat, a float operating in said vessel, and an endwise-movable valve-stem connected to said float, and having a valve fitted in the supply-pipe, for the purpose described, substantially as set forth. 10th. In a